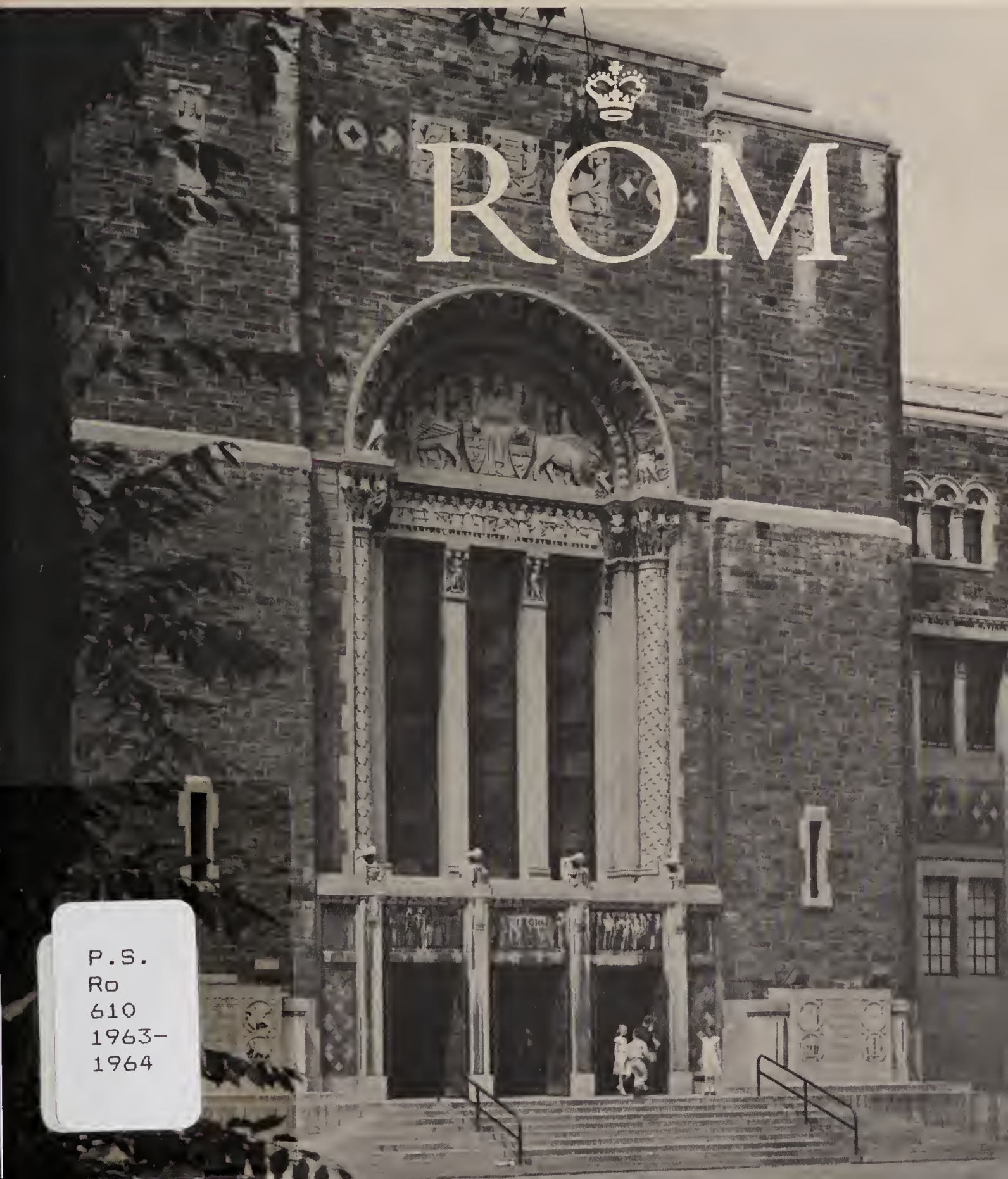


MR. T.M. SHORTT, CHIEF,
DISPLAY - BIOLOGY,
ROM.

Annual Report: 14
July 1963-June 1964

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ROYAL ONTARIO MUSEUM

The Director's Report

The year saw the implementation of several aspects of Museum reorganization that were foreshadowed in the annual report and the President's Report for last year. The President was kind enough to visit the Museum and address the staff, pointing out the particular changes in government and inter-university relationships that his committee had in mind.

In brief, the Director takes a larger place in the University, becoming a member of the Senate and of the Council of the Faculty of Arts and Sciences. In the Museum he is responsible for general policy, curatorial matters, display and academic publication. The Associate Director is responsible for the non-curatorial staff, for day-to-day administration, and for financial matters, and, in the absence of the Director, acts in his stead.

The abolition of the Divisional structure gives a large measure of autonomy with, of course, increased responsibility, to each of the Departments. All curators have direct access to the Director.

The former Heads of the three Divisions also derive new status from the arrangement. Dr. A. D. Tushingham, formerly Head of Art and Archaeology, became Chief Archaeologist, with a wide field of influence that can be likened to an archaeological ambassadorship. Dr. V. B. Meen, previously the Head of Earth Sciences, was appointed Chief Mineralogist, with special commitments in regard to gemstones and meteorites and with a mandate to inaugurate a planetarium in the Museum. Dr. Loris S. Russell became Head of Life Sciences, having resigned his appointment as Director of the National Museum in Ottawa to come to the Royal Ontario Museum. Dr. Russell has now been appointed Chief Biologist, a post for which his great scientific ability and long administrative experience make him especially fitted.

Each of these scientists inaugurated research programmes of a high order and preliminary stages of these began. This new upsurge of activity has already borne some fruit in the form of publications completed during the year and now in the press. It is especially important that some of this work has been done jointly with other institutions, and that Museum departments have combined on occasion. The

British Honduras Expedition has engaged both archaeologists and zoologists, and a geologist may shortly be added to the party. Archaeological international co-operation is nothing new, but its continuation in Jordan and its inauguration in Iran and India are matters of importance.

The Royal Ontario Museum and McGill University have co-operated in ichthyological researches in Barbados. The National Museum of Canada and the Royal Ontario Museum were jointly concerned in an anthropological project, and a palaeontological party was organized between the Royal Ontario Museum and the American Museum of Natural History, New York.

At home and abroad, the Museum has continued to display its authority and its willingness to enter new fields of endeavour. Cross-appointments have been made to an extent never before achieved, and the Museum has co-operated in the academic activities of the University to a greater extent than ever before. Interpretation on a high level for the public continued in a number of gallery projects with every evidence of increasing appreciation. The Museum's place in the interpretation for the public of academic work is of high importance.

The Museum Council suggested in the President's Report has been formed, but owing to lack of appropriate legislative authority it did not meet. Legislation affecting the Museum Board has not yet come before the provincial government, and during the year there were no changes in the University administrative structure as regards the Museum. Centralization of the administrative personnel was effected that entailed some general re-arrangement.

The year that was in many ways so successful was, however, marred by loss and by resignation. William Todd, who was a pioneer in museum conservation and had worked assiduously for 39 years in the Museum, died on July 25th. His place in Canadian conservation and his post in the Museum will be hard to fill. We remember him with gratitude and with affection, and it has been decided to name the reconstituted and re-equipped Conservation Department the William Todd Laboratory.

Mr. Kenneth E. Kidd, Curator of Ethnology, resigned during the year to accept a professorship in Trent University.

Art and Archaeology Departments

The Chief Archaeologist reports that in the past year research was carried out under Mr. Walter Kenyon at Fort Albany on James Bay; on a mound near Port Hope; and on an early historic cemetery near Napanee.

Skin diving operations on the French and Malagne rivers were also supervised. The Museum shared with the Quetico Foundation the costs of the continuing programme of recording Indian pictographs.

Outside Canada, in January, the first season of a five-year programme in British Honduras produced important results, of which the excavation of a stone pyramid and four tombs with rich contents was the most important feature. The field work is under the direction of Dr. David M. Pendergast.

In Jordan, the Jerusalem project, which is a joint undertaking of the Museum, the British School of Archaeology and the Ecole Biblique et Archéologique de St. Etienne, had its third season in the summer of 1963. The Museum's collaboration was made possible by the financial support of the Museum, the University of Toronto, Victoria, Trinity, St. Michael's and Knox Colleges. Dr. A. D. Tushingham is leader of the Canadian party and Associate Director of the expedition.

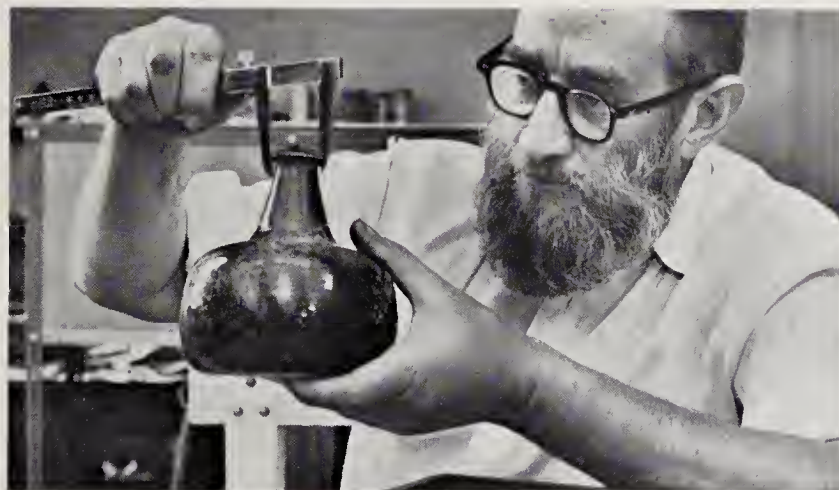
In Turkey, the Museum has contributed financial support to the important expedition conducted by Mr. James Mellaart at Catal Hüyük. Mr. Harold Burnham visited Ankara to study the very early textiles discovered at the site.

The Department of Ethnology continued its field research in the Parry Island Indian Reserve. A full community study is being undertaken.

In December, Dr. E. S. Rogers spent some time studying the Potters' Caste in South India and a number of jungle peoples in the Nilgiria-Wynad area. In the galleries, two new African and three new Ainu cases were installed.

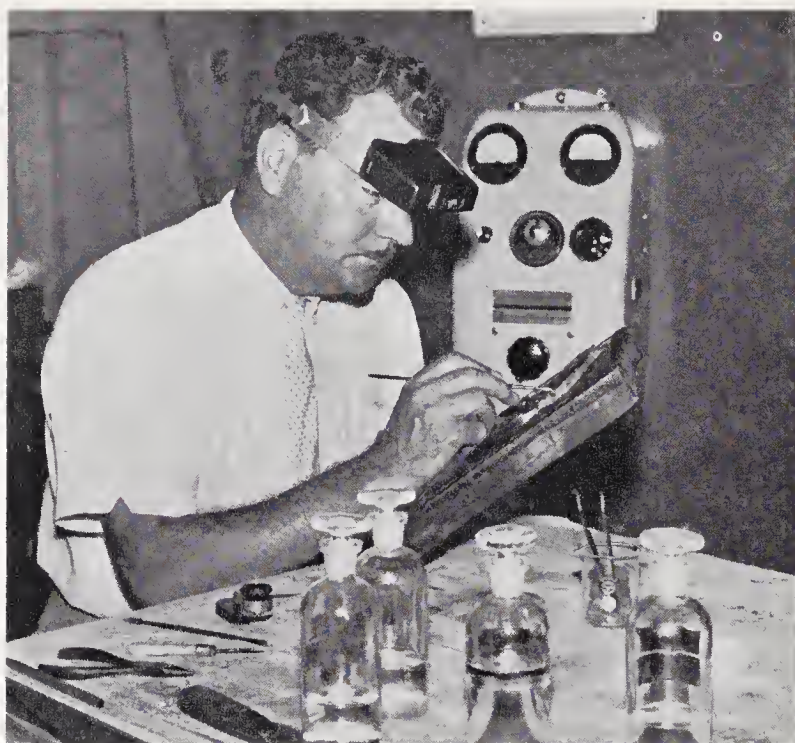


The Museum's royal blue and white flag identified field parties on both sides of the Atlantic. In Jerusalem the Chief Archaeologist, Dr. A. D. Tushingham (*right, in white hat*) was Associate Director of a joint expedition with the British and French Schools of Archaeology. Excavations, begun in 1961 in several areas of the Holy City, have answered some of our questions about its past, but have opened as many new puzzles which demand further digging. Among the discoveries of 1963-64: the first fresh evidence in 16 centuries that the Church of the Holy Sepulchre may indeed stand on the site of Christ's tomb.



From the shores of James Bay, Associate Curator Walter Kenyon brought back an intriguing relic of the fur trade: a brandy bottle uncovered in perfect condition after 2½ centuries of frost and thaw. It was found among the remains of buildings and implements abandoned by the Hudson's Bay Company about 1720. ROM excavation of Fort Albany is the first to show exactly how such early northern fur trading posts were built.

The European Department was mainly concerned with galleries displaying objects from England. In addition to the collection, study and display of Victoriana, the earliest of the series of English galleries, covering the period before 1660, was rearranged. The Elizabethan Room was given a new ceiling and a new floor and was re-lit. The Department was, as usual, fortunate in its friends, and some accessions of considerable importance were received. Special attention may be drawn to porcelain and furniture, given by Mrs. Edgar J. Stone; to a porcelain figure of Bacchus of the middle 18th century, given by Mrs. Donald C. Early; an early 12th century French Romanesque stone capital, given by Mrs. John David Eaton, and late 18th century silver presented by Mr. R. A. Laidlaw.



William Todd (1910–1963), late Chief Conservator of the Royal Ontario Museum. Reconstituted and re-equipped conservation laboratories are to be named in his memory.

Ancient pottery was studied by the Curator, Mr. Gerard Brett, and Mr. Hickl-Szabo studied 14th century French carvings, and both Curators collaborated in the exhibition "Christianity and the Arts."

In the Far Eastern Department, Mrs. Stephen continued her studies of the ancient Chinese chariot. Miss Hsio-yen Shih wrote the catalogue of the Finlayson Collection of wall paintings before leaving for a year's study, on a Canada Council Grant, in Taiwan. The Curator, Mr. Henry Trubner, visited India in January, 1964, and studied some of the most important monuments of early Indian art represented by the sculpture and wall paintings at Ajanta, Elephanta and Ellora.

There were important exchanges of photographs between the Far Eastern Department and the National Palace and National Central Museums in Taiwan. The Museum thus becomes possessed of very valuable photographs, otherwise unobtainable, of the rich material in Taiwan.

The Far Eastern Librarian, Miss Kingston, attended intensive courses in Japanese at Indiana University. The Department was responsible for the arrangement of an important collection of Chinese paintings, the property of Mr. and Mrs. R. W. Finlayson. This exhibition, named "Individualists and Eccentrics," was open from November 26, 1963, to March 1, 1964. A fully illustrated and annotated catalogue of the exhibits was published. The exhibition itself has gone on to a small number of institutions in the United States.

In the Greek and Roman Department, Professor J. W. Graham, who spent most of the academic year in Cambridge as a Fellow of the Association of Universities of the British Commonwealth, also spent the summer excavating Greek and Roman houses in the Agora and surrounding areas of Athens. In the Museum, Mrs. Leipen, the Associate Curator, made a detailed study of Greek and Roman terracotta. The Greek vase collection and the Ptolemaic seal impressions were re-catalogued. Progress was made with a new exhibition of Greek sculpture. Many of the Roman and Greek busts were cleaned.

In the Near Eastern Department, the Curator, Miss Winifred Needler, was much occupied with preparations for the forthcoming Tutankhamun's Treasures and with the rehabilitation of the Punt casts from the Temple of Hatshepsut at Dier el-Bahari. This gallery was greatly improved and is now one of the major attractions of the Near Eastern galleries. Considerable classification, cataloguing and interpretation of objects in the collection was undertaken by Dr. Cuyler Young. Some of this resulted in new cases being prepared for the West Asian gallery.

The Department of Textiles continued to catalogue recent textile and costume accessions and reorganization of the costume storage was begun. Many of the results of this work will be incorporated in texts being prepared by Mrs. Brett, the Curator. Mrs. Brett also continued the preparation of her catalogue of Indian chintz, which now approaches publication. Mr. Harold Burnham, Associate Curator, personally washed and cleaned several hundred valuable specimens, thus making a major contribution to the conservation of the collections. In addition, Mr. Burnham, having received a Canada Council grant, was able to do three months research in England, in Europe and in Turkey. He was also enabled to pursue his studies on Persian velvets in many collections. Mr. Burnham was Curator in charge of the exhibition "Christianity and the Arts," in which a number of the ecclesiastical textiles and vestments were displayed, and which was arranged to coincide with the Anglican Congress in Toronto. A travelling display of painted and printed textiles illustrating the history of chintz was prepared for the Art Institute of Ontario. Among the many important acquisitions was a collection of Islamic textiles of the 10th and 12th centuries A.D.

The Canadiana Department still suffers from its separation from the main building and, indeed, from the division of its exhibits. The main work of the year was the preparation of 3,000 lantern slides of Canadiana material from many sources in Canada, the United States, England and France. Preparation continued with a catalogue on the thousand drawings and water colours in the collection. The Department made many loans to other institutions and gave much advice to inquirers. Principal exhibitions were of a loan of silver from the John Langdon collection and of an indefinite loan of Treenware from the same benefactor. Over 200 pictures in the collection were displayed. Many problems of storage were considered and a survey was made of the requirements of the collection of prints and drawings. The entire collection of drawings is being remounted for special storage. Considerable improvements were made to the lighting in the north gallery.

Among the 200 accessions was a primitive oil portrait of the Abbé Fréré-Duburon, dated about 1792. Eighteen pieces of early Canadian glass were presented by Mr. and Mrs. Gerald Stevens.

Mr. Douglas Patrick, Honorary Curator of the Museum's stamp collections,



Chinese paintings from the collection of Mr. and Mrs. R. W. Finlayson were the subject of a special exhibition, "Individualists and Eccentrics".



Collected in British Honduras: *Left*, a large fruit bat of the genus *Artibeus*, one of several dozen species gathered by a biological field party. Many appear to be new species. *Right*, green stone figure of a kneeling man was found in a Maya tomb, part of a ceremonial complex being excavated by ROM archaeologists.



continued with considerable enthusiasm to make special displays. Much of the collection was catalogued and the Canadian collection rearranged. A new Japanese collection was mounted. Mr. Patrick continued to include news of the Museum's collection and exhibits in a weekly column in the *Globe and Mail*.

The success of the departmental work could not have been achieved without the co-operation of many other members of the Museum staff, including preparators and joiners, and behind them all, the Conservation Department, which has continued to do research into museum materials and to restore objects of all kinds for gallery display and for safe storage. Fungicides and insecticides were the subject of considerable experiment, so that safe usage can be established. Research on the chemistry of paper continued.

One of the major museum problems is humidification in the furniture galleries. A test unit was installed and Dr. Antony Werner, Keeper of the British Museum Research Laboratory, spent two weeks in the Museum, advising the staff on this problem. Since the death of Mr. Todd, Mrs. Phillimore has acted as Head of the Department.

Science Departments

Dr. V. B. Meen, the Chief Mineralogist, began research into the chemical and physical nature of some Canadian meteorites in collaboration with the United States National Museum. Dr. Meen was, however, mainly concerned with the proposal to establish a planetarium for the Royal Ontario Museum. He visited the main manufacturers in Germany and in the United States, and examined seven of the major installations.

Dr. Walter Tovell, the Curator of Geology, investigated the cobble beaches at Montreal River Harbour. He was much engaged in the reorganization of his Department, and did a large amount of instruction in the University and at summer science camps of the Royal Canadian Institute and the Federation of Ontario Naturalists. Among the Department's accessions were specimens of copper slag from King Solomon's Mines, Jordan.

Dr. J. A. Mandarino, Associate Curator of Mineralogy, completed research on the first occurrences in Canada of the rare lead selenite, molybdomenite. In addition, he re-examined specific refractive energy constants, discovering a number of irregularities and errors.

Dr. D. C. Harris, Assistant Curator of Mineralogy, made detailed studies of the polybasite-pearceite series, and proposed a new classification. In addition, the Mineralogy Curators were occupied in reclassifying the hundred thousand specimens of the mineral collection, thus providing a remarkable reference series for visiting scholars and other workers.

Detailed planning has been made for the new mineralogical display, which is in the hands of the Display Chief (Mineralogy), Mr. John Hillen.

Dr. L. S. Russell, the Chief Biologist, completed studies on the Tertiary vertebrates of western Canada and on the Cretaceous non-marine faunas of the northern plains region. He also prepared a hypothesis on the extinction of the dinosaurs. He taught vertebrate palaeontology in both the Zoological and Geological departments.

Dr. R. L. Peterson, Curator of Mammalogy, completed the manuscript of a large work "The Mammals of Eastern Canada." He found time, however, for a renewal of research work on the Museum's unrivalled collections from British Guiana and was able to make further contributions to the knowledge of bats. With a departmental technician, the Curator carried out a brief expedition to British Honduras, adding considerably to the Museum's collections.

The Ornithological Department continued its labours in the rearrangement of its very fine new bird room. Much time was spent in the identification of bird bones collected by the Department of Ethnology at Fort Albany. In addition, intensive collecting in southern Ontario was carried out during the summer. The popularity of ornithology in general has caused great demands to be made on the services of Mr. James L. Baillie, Assistant Curator, at present in charge of the collection. A very large number of inquiries reaches this Department every day.

The Department of Ichthyology and Herpetology was particularly active during the year. The Curator, Dr. W. B. Scott, and the Associate Curator, Dr. E. J. Crossman, were engaged in major research projects. Dr. Scott made a serious start on his studies of Atlantic fishes, a problem he is attacking from the McGill University Institute in Barbados and from the St. Andrews Fishery Research Board in New Brunswick. None the less, he was also able to make investigations on the characteristics of the pink salmon in Lake Superior and to study white fish from eastern Canada. He also conducted the graduate course in systematic ichthyology for the full academic



An erratic boulder near Tweed: one more item in the continuing study of Ontario geology.



Preserving life of the past and present: *Left*, mastodon bones were discovered at Welland Port, Ontario, and exhibited in the Museum. Technician Gordon Gyrnov later took part in palaeontological field trips to western Canada and up the Alaska highway. *Below*, the rain forest of southern India is re-created in a new display sponsored by Brooke Bond Canada Ltd. More than 50 varieties of plants and animals are represented. Within days of finishing it Terry Shortt, Display Chief (Biology), was packing to go to the Galapagos Islands to collect material for a second diorama, in a series of seven planned to show different zoogeographic areas of the world.



year. Dr. Crossman continued, with the aid of National Research Council and other grants, his detailed morphometric description of hybrid esocids, in which electrophoretic examinations, made in collaboration with the Department of Biochemistry of the University, played a considerable part. In addition, 8,000 specimens were catalogued and added to the permanent collections.

A large and excellently preserved collection of 3,000 West Indian fishes was donated by Dr. G. Purrer of Waterloo University. A large collection of Malayan fishes was also presented by Dr. C. C. Lindsey of the University of British Columbia.

The Department of Entomology and Invertebrate Zoology saw the second year of the Associate Curator's work on Trichoptera, under a National Science

Foundation grant. Dr. Wiggins' laboratory work included a detailed study of the North American species of the caddis-fly genus *Mystacides*.

The programme of rearing larvae was successfully continued. Field work centred on a trip to Oregon, through Wyoming and Idaho, returning via Washington and British Columbia. Investigation was made in the thermal streams of Yellowstone Park, and 2,000 specimens were added to the Museum's outstanding collection of Trichoptera.

A Research Associate, the Rev. J. C. E. Riotte, has conducted field work at the Queen's University Biological Station, Chaffey's Locks, Ontario, and collected over 7,000 specimens of adult insects for the collection. Research on the systematics of the crayfishes of Ontario was continued by a student assistant, Mr. D. W. Barr. This revealed some unexpected results, as well as yielding opportunities of observing behaviour and growth patterns of various species in the laboratory. Unfortunately, the Honorary Curator, Dr. E. M. Walker, one of Canada's most distinguished entomologists, was ill throughout most of the year, and his work on the Odonata of Canada and Alaska was largely suspended.

A special exhibition marked the centennial of Entomology in Canada and was continued through the summer and the fall. Portions of the exhibit were shown by request at Carleton University and were also the subject of a special radio programme. A special exhibition of biting and stinging insects was prepared and has created much interest.

Dr. R. R. H. Lemon, Associate Curator, reports that in the Department of Invertebrate Palaeontology studies on Tertiary and Recent marine molluscs were continued. Most of the specimens came from Ecuador and Peru, but comparison was made with a wider field. Field work on the faunas of both sides of the Panamanian Isthmus was also done and should yield valuable information for a broader study of the geological history of the Isthmus. This work will be done in co-operation with the Department of Vertebrate Palaeontology, in its study of the land bridge which the Isthmus once constituted. Considerable collections were made in southern Peru and in Chile. These demand detailed investigation and Carbon 14 dating.

Dr. Lemon was again responsible for the course in Historical and Stratigraphical Geology in the Department of Geological Sciences, and he was actively engaged with Mr. Harley Parker, Display Chief (General), in preparing the plans for a new gallery of Invertebrate Palaeontology. Three-dimensional models were made and the gallery construction began.

The Department of Vertebrate Palaeontology under Dr. A. G. Edmund, Associate Curator, was mainly concerned with the preparation and cataloguing of the rich Pleistocene fauna collected in previous years in Ecuador and Peru. Very fine series of giant ground sloths have been obtained. Dr. Edmund, with the aid of a grant from the National Research Council, was able to examine most of the Latin-American museum collections, so that the basis of a new and wide study of a remarkable fossil fauna has been laid down. A second National Research Council grant made it possible for Dr. Edmund to continue the study of tooth replacement in reptiles. About twenty reptiles representing several families have been kept alive, and radiographs have been made at monthly intervals. Quite new information has been revealed by these studies.

The bones of an American Mastodon were discovered at Welland Port, Ontario, and were exhibited. They appear to date from about 6000 years B.C. New exhibits of the evolution of horses and of the evolution of flight were installed in the gallery. A striking addition to the dinosaur display was the skull of *Tarbosaurus*, sent as a gift from the Academy of Sciences of the U.S.S.R. This skull makes possible a comparison between the giant carnivores of Cretaceous Age in Asia and those of Canada and the United States.

The Biology Display Department has been continuously engaged in the preparation of a large diorama of the hills of southern India. An expedition to the region of the Anamallai Hills was made during the winter, and a representative selection of animals and plants was made. The diorama has several quite new features

in construction and presentation. A complete photographic record of its preparation and of the expedition to India was made.

Education Department

The basic pattern of the activities of the Department remains essentially the same from year to year, yet within the framework of its responsibilities lie infinite variations.

Within the Museum, the gallery exhibits are the tools with which to work. This past year was one that put demands upon the teachers' abilities to compromise and improvise because of the extensive new displays which were in preparation. The classroom teachers have been extremely patient and understanding.

Each class comes with a different purpose. The visit may stimulate interest in a new topic or be the culmination of a specific study; this calls for a particular emphasis on the part of the Museum teacher. It is a decided advantage to have no stereotyped plan for each lesson. At the same time, there is the constant struggle to maintain academic standards within this flexibility.

The Department was also active outside the Museum. During the past year, four staff members taught in the elementary and secondary schools of Algoma District and six eastern Ontario counties. The aggregate of their time was equivalent to one quarter of the school year.

It is impossible to assess the importance of the 267 lessons taught to 9,638 pupils. However, the following quotations from an elementary school inspector are typical of appreciation which we receive each year. "The many pieces of interesting information not normally found in school texts served admirably to heighten pupil interest and increase their appreciation. The teaching techniques used provided a model for the teachers who observed them and maintained a high level of pupil participation."

Many schools visited by a Museum teacher in the previous year received a travelling exhibit last year. Each exhibit is devoted solely to the development of a topic relevant to the curriculum. Approximately 30,000 pupils examined the contents of our fifteen cases.

"At their last meeting, members of the Children's Council expressed their gratitude for the Club's programme and agreed that it was fun exploring and learning in the Museum. They liked the variety of subjects provided for their study: outings, movies, meeting people of other countries and cultures, art work and dancing. Participation in Club activities facilitates their schoolwork, arouses their latent interests and abilities, and occasionally helps to form new friendships." So runs part of Miss Berlin's report on the Saturday Morning Club. On one of their free-choice days, the children, and instructors, gained new insights by exploring behind the scenes in the Museum. The other fact that should be highlighted is that in order to develop her programme Miss Berlin made valuable contacts with people who, in some cases, were seeing the Museum for the first time.

A programme of Sunday films was, as usual, offered to the adult public on ten Sundays during the fall and winter.

Two unique Extension courses were available to the public. "Exploring the Arts" developed into an exciting seminar where frequently two speakers interwove their ideas in an original and stimulating fashion. "The Anatomy of the Earth," appealing to a more homogeneous group, many of them teachers, was the second successful course.

At the beginning of the academic year, the freshmen of University College were taken on a tour behind the scenes. The Curators of the various departments welcomed them and discussed their own particular tasks and interests.

To impart information and introduce the Royal Ontario Museum to 100,000 children a year is a responsibility which can be fulfilled only by means of teamwork. The members of the Education Department appreciate the advice and encouragement of administrators and curators. They are grateful for the co-operation of all service departments of the Museum.



Three phases of education: *Above*, on television, the work of the Museum was shown in a series of six CBC broadcasts. *Left*, nearly 87,000 school children came to the ROM as part of their regular curriculum. Others were visited in the classroom by ROM staff. *Below*, The Saturday Morning Club, for youngsters 8 to 14 years of age, had a Chinese visitor.



Information Services

Much of the over-all success of the Museum must be in good public relations and publicity. Under the guidance of Mr. Ian Montagnes, every available medium—newspapers, magazines, radio, television, direct mail, subway and other advertising, and the Museum's own publications—was used. Special attention was given to the research and educational work of the Museum staff. Rising attendances in the Museum generally, and at special lectures, may in part have resulted from this activity.

Some of the more important achievements made through the Department were: (1) A series of six half-hour television broadcasts on the work of the Royal Ontario Museum, produced by the Canadian Broadcasting Corporation in its "Live and Learn" series, and repeated. (2) Publication of a short Guide to the Museum. (3) Most friendly co-operation with the Department of Information, University of Toronto, which resulted in regular articles about R.O.M. activity in *Varsity Graduate* (15,000 circulation) and *Varsity News* (100,000 circulation). (4) Inception of *Meeting Place*, thrice-yearly Journal of the Royal Ontario Museum, within the pages of *Varsity Graduate*. (5) The design of a Royal Ontario Museum flag for use by field parties.

The Department worked with the Metropolitan Educational Television Association (META) in the production of school broadcasts in the "Peoples of the Americas" series (which were made possible by the staff of the Department of Ethnology) and a special broadcast on Museums, "Keys of our Kingdoms," by the Director. Within the Department, reference files have been entirely reorganized to make information easily available to the staff and the press.

The guidance of the senior members of the Museum administration and the co-operation of the staff in general were greatly appreciated. Mr. Warren, the Museum Photographer, was a constant tower of strength. The craftsmanship of the University of Toronto Press was coupled with a personal interest in the Museum's needs.

Library

Progress was made both in cataloguing new acquisitions and in recataloguing older collections into an integrated collection. A total of 1,219 books was catalogued. At the end of the year, holdings exceeded 40,000 volumes of books and periodicals.

Despite the small budget, purchases recommended by the curatorial staff did much to improve the library's range and balance.

Increased use was made of the library's resources: 886 reference queries were answered and 2,760 items were circulated. In addition, 541 reference searches were carried out for students and visitors to the Museum; 403 books and journals were borrowed from other libraries (chiefly from the University of Toronto Library); and the Museum Library loaned 110 items to other libraries across Canada.

Early in 1964, the Museum's exchange records with other institutions were completely revised, and, for the first time, centralized in the Museum Library.

The year saw a closer liaison with the University of Toronto Library, in accordance with the recommendations of the Presidential Committee, as a result of which over 300 rare books were transferred to the University Library.

The chief accession during the year was a complete set of the invaluable Library of Congress Author Catalogs, purchased through a special fund. The addition of a microcard reader improved the library's facilities.

The Museum Library was unfortunate in losing the valued services of its Head Librarian, Mrs. Elizabeth Karrow, when she moved to Waterloo, Ontario. Mrs. Karrow, an employee of the Royal Ontario Museum for five years, was Librarian when the central museum library was formed. She was succeeded as Head Librarian by Miss Eleanor Feely.

The Women's Committee

For the ladies who volunteer their service "to assist the staff as they request, and

to encourage public interest in the R.O.M.," the year was less of a challenge. There were no great exhibitions to which they could act as guides or advisers.

The ladies gracefully assisted at the opening of the Finlayson exhibition and spent a good deal of time studying Canadiana and Textiles.

Their valuable services in the curatorial departments were continued and it would be churlish to count in hours and minutes the work that willing hands can do and which, sometimes, would not otherwise be done at all.

The Easter Party was its customary success and reflected long hours of planning and skilled handicraft. The archaeological theme was spread over two groups, suitably distinguished by Mayan or Egyptian headdresses.

The juniors, 182 in all, with 63 parents, excavated in the morning and 108 seniors (aged 11 and over) dug in the afternoon.

There is no reason to believe that any of the young or older archaeologists were disappointed. It was good to see the mixture of adult and child, parent and professional in the latest of these stimulating adventures. Time alone will tell of captured imaginations and moulded futures.

The staff join in thanking the ladies for their continued enthusiasm and help.

W. E. SWINTON

USE OF THE ROYAL ONTARIO MUSEUM
GALLERIES AND STUDIES

(The total attendance is over 25 per cent greater than that of the previous year)

	No. of groups	No. of visitors
A. <i>Visitors</i>		
1. Royal Ontario Museum		329,671
2. Sigmund Samuel Canadiana Gallery		16,271
TOTAL		345,942
B. <i>School Classes</i>		
1. Metropolitan Toronto	1,230	42,706
2. Provincial	360	22,769
3. Unconducted	757	21,454
TOTAL	2,347	86,929
C. <i>Other Groups</i>		
1. Ontario College of Art	387	14,877
2. Miscellaneous	551	19,641
3. University of Toronto	370	68,796
4. Extension Courses	20	1,221
TOTAL	1,328	104,535
D. <i>Other uses</i>		
Lectures, Openings, etc.	12	3,051
E. <i>Rentals</i>	116	40,269
SUMMARY		
Visitors		345,942
School classes	2,347	86,929
Other groups	1,328	104,535
Other uses	12	3,051
Rentals	116	40,269
GRAND TOTAL	3,803	580,726

Publications

- BAILLIE, J. L. "Ontario's Seven Vireos" (*Young Naturalist*, vol. 6, no. 6, June, 1964, p. 1).
 — "The 13 Most Recent Ontario Nesting Birds" (*Ontario Field Biologist*, no. 17, Dec., 1963, pp. 15–26).
 — "The 38th Toronto Christmas Bird Count, 1962" (*ibid.*, no. 17, Dec., 1963, pp. 30–1).
 — "Three Bird Immigrants from the Old World" (*Transactions of the Royal Canadian Institute*, vol. 34, Pt. II, Oct., 1963, pp. 95–105).
 — "The Toronto Ornithological Club's Christmas Bird Count, 1961" (*Ontario Field Biologist*, no. 16, Dec., 1962, pp. 29–30).
 — Reviews, *Canadian Audubon*, vol. 25, no. 4, Sept.–Oct., 1963, p. 132; vol. 26, no. 2, Mar.–Apr., 1964, p. 57.
- BALDWIN, D. H. "Enquiry into the Mass Mortality of Nocturnal Migrants in Ontario, Progress Report II" (*Ontario Naturalist*, vol. 1, no. 2, June, 1963, pp. 7–15).
 — "First Ontario Burrowing Owl Collected" (*Ontario Field Biologist*, no. 17, Dec., 1963, p. 35).
- BURNHAM, H. B. "Obituary: William Todd, F.I.I.C." (*Canadian Museums Association Bulletin*, vol. 14, no. 4, fall, 1963, p. 18).
 — "The World's Oldest Textiles" (*Varsity Graduate*, vol. 11, no. 2, May, 1964, pp. 105–8).
- CROSSMAN, E. J. *Sources of Information on Identity, Life History and Care of Amphibians and Reptiles*. ROM Information Leaflet no. 3. Toronto: Royal Ontario Museum, Department of Ichthyology and Herpetology, 1963. Pp. 4.
 — Review, *Canadian Field Naturalist*, vol. 77, no. 3, July–Sept., 1963, p. 172.
- DYMOND, J. R. "A History of Ichthyology in Canada" (*Copeia*, no. 1, March, 1964, pp. 2–33).
- HAHN, P. *Where is that Vanished Bird? An Index to the Known Specimens of the Extinct and Near Extinct North American Species*. Toronto: Royal Ontario Museum. 1963. Pp. 347.
- HEINRICH, T. A. *Art Treasures in the Royal Ontario Museum*. Toronto: McClelland and Stewart. 1963. Pp. viii, 200.
- HILLEN, J. B. "The Length of Labels" (*Canadian Museums Association Bulletin*, vol. 14, no. 4, fall, 1963, p. 17).
- KENYON, W. A. "Ontario Report" in *Diving into the Past: Theories, Techniques and Applications of Underwater Archaeology, the Proceedings of a Conference on Underwater Archaeology Sponsored by the Minnesota Historical Society, St. Paul, April 26–27, 1963*, ed. by J. D. Holmquist and A. H. Wheeler, pp. 72–3. St. Paul: Minnesota Historical Society and the Council of Underwater Archaeology. 1964.
 — "The Origins of the Iroquois" (*Ontario History*, vol. 56, no. 1, March, 1964, pp. 1–4).
- KIDD, K. E. "Archaeological Investigations in Quetico Park 1963" (*Transactions of the Royal Canadian Institute*, vol. 34, Pt. II, Oct., 1963, pp. 106–10).
 — "Rock Paintings—an Ontario Heritage" (*Ontario Naturalist*, vol. 1, no. 2, June, 1963, pp. 26–8).
 — "Some Approaches to the Problems of Identifying Historical Materials"; in *Diving into the Past: Theories, Techniques and Applications of Underwater Archaeology, the Proceedings of a Conference on Underwater Archaeology Sponsored by the Minnesota Historical Society, St. Paul, April 26–27, 1963*, ed. by J. D. Holmquist and A. H. Wheeler, pp. 44–8. St. Paul: Minnesota Historical Society and the Council of Underwater Archaeology. 1964.
 — Review, *Plains Anthropologist*, vol. 8, no. 20, May, 1963, pp. 135–7.
- LEIPEN, N. "The Athena Parthenos by Phidias" (*Phoenix*, vol. 17, no. 2, summer, 1963, pp. 119–22).
 — "VIIIth International Congress of Classical Archaeology" (*Archaeology*, vol. 17, no. 1, spring, 1964, pp. 61–4).
- LEMON, R. R. H. "Ontario Fossils" (*Ontario Naturalist*, vol. 1, no. 1, March, 1963, pp. 7–10).
- LEMON, R. R. H. and BLACKADAR, R. G. *Admiralty Inlet Area, Baffin Island, District of Franklin*. Geological Survey of Canada Memoir 328. Ottawa: Department of Mines and Technical Surveys. 1963. Pp. 84.
- MANDARINO, J. A. "X-Ray Powder Data for Aminoffite" (*American Mineralogist*, vol. 49, nos. 1 and 2, Jan.–Feb., 1964, pp. 212–4).
- MANDARINO, J. A., WILLIAMS, S. J. and MITCHELL, R. S. "Spiroffite, a New Tellurite Mineral from Moctezuma, Sonora, Mexico" (*Mineralogical Society of America, Special Paper* 1, 1963, pp. 305–9).
- MARSHALL, G. R. and GARTON, C. E. "Arctic Flora of the North Shore of Lake Superior" (*Ontario Naturalist*, vol. 1, no. 3, Sept., 1963, pp. 8–12).
- NEEDLER, W. "An Egyptian Funerary Bed of the Roman Period in the Royal Ontario Museum" (*Proceedings of the Twenty-fifth Congress of Orientalists, Moscow, 1960*, vol. 1, 1962, pp. 100–1).
- PARKER, H. W. "Advertizing and You" (*Scope*, vol. 3, no. 10, June, 1964, pp. 4–11).
 — "The Museum as a Communication System" (*Curator*, vol. 6, no. 4, 1963, pp. 350–60).
 — "The Museum, can we get with It?" (*Varsity Graduate*, vol. 11, no. 2, May, 1964, pp. 109–12).

- PENDERGAST, D. "Uncovering a Mayan Centre: An Informal Report from the Field" (*Varsity Graduate*, vol. 11, no. 2, May, 1964, pp. 98-103).
- PETERSON, R. L. "Collecting Mammals in British Honduras" (*Varsity Graduate*, vol. 11, no. 2, May, 1964, pp. 103-4).
- ROGERS, E. S. *The Hunting Group-Hunting Territory Complex among the Mistassini Indians*. National Museum of Canada Bulletin no. 195; Anthropological Series no. 63. Ottawa: Department of Northern Affairs and National Resources. 1963. Pp. 95.
- "Notes on Lodge Plans in the Lake Indicator Area of South-Central Quebec" (*Arctic*, vol. 16, no. 4, Dec., 1963, pp. 219-27).
- "The Spirits Still Speak in the Forest . . ." (*Varsity Graduate*, vol. 11, no. 2, May, 1964, pp. 4-9).
- ROGERS, E. S. and ROGERS, J. H. "The Individual in Mistassini Society from Birth to Death" (*National Museum of Canada, Contributions to Anthropology*, 1960, Pt. II; *Bulletin* no. 190; *Anthropological Series* no. 60, 1963, pp. 14-36).
- RUSSELL, L. S. "Canadian Museums—this Centenary and the Next" (*Canadian Museums Association Bulletin*, vol. 14, no. 4, fall, 1963, pp. 8-14).
- "Problems and Potentialities of the History Museum" (*Curator*, vol. 6, no. 4, 1963, pp. 341-9).
- SCOTT, W. B. *Checklist of the Fishes of the Canadian Atlantic*. ROM Information Leaflet no. 4. Toronto: Royal Ontario Museum, Department of Ichthyology and Herpetology. 1963. Pp. 23.
- "A Review of the Changes in the Fish Fauna of Ontario" (*Transactions of the Royal Canadian Institute*, vol. 34, Pt. II, Oct., 1963, pp. 111-25).
- SCOTT, W. B. and CHRISTIE, W. J. "The Invasion of the Lower Great Lakes by the White Perch, *Roccus americanus* (Gmelin)" (*Journal of the Fisheries Research Board of Canada*, vol. 20, no. 5, Sept., 1963, pp. 1189-95).
- SCOTT, W. B. (with McKenzie, R. A. and Tibbo, S. N.). "An Occurrence of Mako Sharks, *Isurus oxyrinchus*, Rafinesque 1810, in the Canadian Atlantic" (*ibid.*, pp. 1353-4).
- SHIH, Y. Exhibition catalogue entries; in *Catalogue of the Exhibition of Individualists and Eccentrics: the Mr. and Mrs. R. W. Finlayson Collection of Chinese Paintings*, pp. 1-80. Toronto: Royal Ontario Museum. 1963.
- SNYDER, L. L. "Forster's 'Hirundo 35'" (*Canadian Field Naturalist*, vol. 77, no. 3, July-Sept., 1963, pp. 173-4).
- "On the Type Locality of Thirteen North American Birds" (*ibid.*, vol. 77, no. 2, Apr.-June, 1963, pp. 128-9).
- SWINTON, W. E. "The Death of the Dinosaurs" (*Globe and Mail Magazine*, July 20, 1963, pp. 12-14).
- *Oop die Spoor van die Draakakkedissee*. Cape Town: Malherbe. 1963. Pp. 32.
- *Dinosaurs*. London: British Museum (Natural History), 2nd ed. 1964. Pp. 44.
- "The Future of the Museum" (*Varsity Graduate*, vol. 11, no. 1, March, 1964, pp. 44-8).
- "Making a Profession" (*Canadian Museums Association Bulletin*, vol. 15, no. 1, spring, 1964, pp. 2-3).
- SYMONS, S. "Foreword"; in *In a Canadian Attic*, by Gerald Stevens, pp. vii-viii. Toronto: Ryerson Press. 1963.
- TOVELL, W. M. "Some Things about Earthquakes" (*Ontario Naturalist*, vol. 2, no. 2, June, 1964, pp. 16-19).
- Review, *Ontario Naturalist*, vol. 1, no. 3, Sept., 1963, p. 37.
- TOVELL, W. M. and MARSHALL, G. R. "Drunlins" (*ibid.*, no. 4, Dec., 1963, pp. 22-6).
- TRUBNER, H. "Introduction"; in *Catalogue of the Exhibition of Individualists and Eccentrics: The Mr. and Mrs. R. W. Finlayson Collection of Chinese Paintings*, pp. vii-xv. Toronto: Royal Ontario Museum. 1963.
- "Two Examples of Ch'ing-pai Porcelain in the Royal Ontario Museum" (*Archives of the Chinese Art Society of America*, vol. 17, 1963, pp. 38-9).
- "The Wild Beasts of Chinese Art" (*Art News*, vol. 62, no. 8, Dec., 1963, pp. 33 and 64).
- Reviews, *Globe and Mail Magazine*, Feb. 29, 1964, p. 13; *Journal of the American Oriental Society*, vol. 83, no. 1, pp. 157-8 and 158-61.
- TUSHINGHAM, A. D. Review, *Archaeology*, vol. 16, no. 4, winter, 1963, pp. 293-4.

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